

REMARKS

Claims 1-8 were pending in this application.

Claims 2 and 3 have been canceled.

Claims 1-8 have been rejected.

Claims 1, 7 and 8 have been amended as shown above.

Claims 1 and 4-8 remain pending in this application.

Reconsideration and full allowance of Claims 1 and 4-8 is respectfully requested.

I. OBJECTION TO SPECIFICATION

The Office Action objects to the specification due to various informalities listed in the Office Action. The Applicants have amended the specification to correct the informalities, as suggested by the Office Action. The Applicants respectfully submit that these amendments to the specification do not introduce new matter, and their entry is respectfully requested. Accordingly, the Applicants respectfully request the withdrawal of the objections to the specification.

II. OBJECTION TO DRAWINGS

The Office Action objects to the drawings under MPEP § 608.02(g), and requests that Figures 1-4 be designated by a legend such as --Prior Art--. The Applicants respectfully traverse this objection. Figure 1 illustrates a cellular telephone network for implementing the present invention, Figure 2 illustrates a cellular telephone for implementing the present invention, Figure 3 illustrates a

base station for implementing the present invention and Figure 4 illustrates a GPS receiver and processor for implementing the present invention, as described in the present application. Accordingly, the Applicants respectfully request the withdrawal of the objection to the drawings under MPEP § 608.02(g).

In addition, the Office Action objects to the drawings under 37 CFR 1.83(a) as not showing every feature of the invention including the apparatus of how the Doppler information is obtained or utilized. The Applicants have submitted a proposed drawing correction to Figure 4 showing a signal representing the Doppler information being mixed with the target signal prior to processing the target signal, as described on page 8, lines 23-28 of the present application. The Applicants respectfully submit that this change does not introduce new matter, and its entry is respectfully requested. Accordingly, the Applicants respectfully request the withdrawal of the objection to the drawings under 37 CFR 1.83(a).

III. REJECTIONS UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1-8 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,236,673 to Julg (“*Julg*”). The Applicants respectfully traverse this rejection.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is

found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Julg discloses a control loop (DLL) for correcting the phase shift in received GPS signals due to Doppler shift using a synthetic discriminator characteristic generator 25 for determining the discriminator characteristics of a voltage controller oscillator (VCO) 16. (*Julg*, Col. 5, Lines 49-56). The VCO 16 supplies a frequency to a pseudo-noise signal generator 10 that forms three signals differing in temporal shift that are correlated with a target signal, for example, in correlators 11 and 12. (*Julg*, Col. 2, Lines 1-61).

Julg lacks any mention of “modifying the target signal as a function of the Doppler information” prior to correlating the target signal with the reference signal, as recited in Claims 1, 7 and 8 of the present application. Instead, in *Julg*, the discriminator characteristics are used to control the frequency of the VCO, which in turn, is used to control the pseudo-noise generator that provides signals to correlators 11 and 12. Therefore, the target signal in *Julg* is not modified as a function of the Doppler information prior to being correlated.

For at least these reasons, *Julg* fails to anticipate the Applicants’ invention as recited in Claims 1, 7 and 8 (and their dependents). Accordingly, the Applicants respectfully request the withdrawal of the § 102 rejection and full allowance of Claims 1 and 4-8.

IV. REJECTIONS UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable over Povey, Gordon J. R. et al., "Doppler Compensation and Code Acquisition Techniques for LEO Satellite Mobile Radio Communications," 5th International Conf. On Satellite Systems for Mobile Communications and Navigation, 5/1996, pp. 16-19 ("*Povey*") in view of U.S. Patent No. 6,208,291 to Krasner ("*Krasner*"). The Applicants respectfully traverse this rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

Povey discloses a PN code acquisition technique using a FFT technique to estimate the Doppler offset on a pilot carrier signal. The estimated Doppler offset is taken to be the frequency offset between the local and received carrier frequencies, and therefore, is approximated to be the loss in equation (2) on page 16. (*Povey*, page 17, Col. 2, Para. 6). The loss in equation (2) is used when doing cross-correlation between a target signal and a reference signal using a serial search method.

There is no teaching or suggestion in *Povey* of “modifying the target signal as a function of the Doppler information” prior to correlating the target signal with the reference signal, as recited in Claims 1, 7 and 8 of the present application. In addition, the Office Action does not recite *Krasner* as disclosing, teaching or suggesting “modifying the target signal as a function the Doppler

information” prior to correlating the target signal with the reference signal, as recited in Claims 1,7 and 8.

As a result, the Office Action fails to establish a *prima facie* case of obviousness against Claims 1 and 4-8. Accordingly, the Applicants respectfully request the withdrawal of the § 103 rejection and full allowance of Claims 1 and 4-8.

V. **CONCLUSION**

As a result of the foregoing, the Applicants assert that the claims in the application are in condition for allowance and respectfully requests an early allowance of such claims.

SUMMARY


If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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